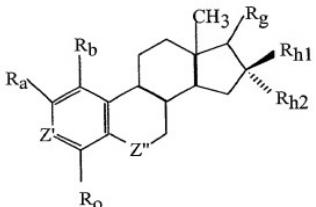


## CLAIMS

We claim:

5

1. A compound of the general formula:



wherein:

a) R<sub>B</sub> and R<sub>O</sub> are independently -H, unless otherwise noted to be -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -OR<sub>6</sub>, -CH<sub>2</sub>-OH, -NH<sub>2</sub>, or N(R<sub>6</sub>)(R<sub>7</sub>), wherein R<sub>6</sub> and R<sub>7</sub> are independently hydrogen or an alkyl or branched alkyl with up to 10 carbons;

b) R<sub>1</sub>-is-C≡N<sub>2</sub>-C=N-R<sub>3</sub>-CH<sub>2</sub>-C≡R<sub>4</sub>-C=C-R<sub>5</sub>-C=CH-R<sub>6</sub>-R<sub>7</sub>-C=CH<sub>2</sub>-C≡CH-R<sub>8</sub>-CH<sub>2</sub>-C≡N.

15 >C(H)-C(O)-OR<sub>3</sub>, -O-R, -R-R<sub>1</sub>, -O-R-R<sub>1</sub>, OR(O)R, OR(O)R<sub>1</sub>, ROR, ROR<sub>1</sub>, -NHC(O)R<sub>6</sub>, -  
NRC(O)R<sub>6</sub>, -NH<sub>2</sub>, or N(R<sub>6</sub>)(R<sub>7</sub>), wherein R<sub>6</sub> and R<sub>7</sub> are independently hydrogen or an alkyl  
or branched alkyl with up to 10 carbons; or a hetero group wherein the hetero group may have  
more than one hetero atom and may be substituted, where R is H or a straight or branched  
alkyl with up to 10 carbons or aralkyl, and in any position F may be substituted in or on the  
20 carbon chain, and R<sub>1</sub> is -OH, -NH<sub>2</sub>, -Cl, -Br, -I, -F or CF<sub>3</sub> when R<sub>1</sub> is terminal;

c) Z' is  $\geq$ COH unless otherwise noted to be  $>$ C-OAc;

d) >C-Rg is >CH<sub>2</sub>, >C(H)-OH, >C=O, >C=N-OH, >C(R<sub>3</sub>)OH, >C=N-OR<sub>3</sub>, >C(H)-NH<sub>2</sub>, >C(H)-NHR<sub>3</sub>, >C(H)-NR<sub>3</sub>R<sub>4</sub>, or >C(H)-C(O)-R<sub>3</sub>, where each R<sub>3</sub> and R<sub>4</sub> is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl; or

25 R<sub>g</sub> is i) an alkyl of 1-10 carbon atoms that is straight chain or branched, ii) an alkenyl of 1-10 carbon atoms that is straight chain or branched having one or more double bonds at

any position from C to Z<sub>0</sub>, iii) an alkenyl group of 1-10 carbon atoms that is straight chain or branched having one or more triple bonds at any position where chemically possible, iv) a mono or dialkyl amino group wherein each alkyl chain has from 1-10 carbon atoms and is straight chain or branched, v) (CH<sub>2</sub>)<sub>n</sub>-CF<sub>2</sub>-, (CH<sub>2</sub>)<sub>n</sub>-CR<sub>1</sub> or (CH<sub>2</sub>)<sub>n</sub>-CF<sub>3</sub> wherein n=0-10  
 5 carbons, or vi) H, and wherein any of i-iv are optionally substituted with an aromatic or heteroaromatic group or optionally substituted with a heterogroup and wherein R<sub>g</sub> is either in the α or β position and; or

R<sub>g</sub> is R<sub>g1</sub> and R<sub>g2</sub>, and wherein R<sub>g1</sub> may be present or absent and when present is -H, an alkyl, alkenyl, or alkynyl of 1-10 carbon atoms that is straight chain or branched and is  
 10 optionally substituted, and R<sub>g2</sub> is a hetero group, wherein when R<sub>g1</sub> is absent the heterogroup is bonded to the 17-position with a double bond, and wherein either R<sub>g1</sub> or R<sub>g2</sub> can be in the β position with the other group in the α position, and R<sub>1</sub> is -OH, -NH<sub>2</sub>, -Cl, -Br, -I, -F or CF<sub>3</sub> when R<sub>1</sub> is terminal;

e) R<sub>h1</sub> and R<sub>h2</sub> are independently H, unless otherwise noted to be a straight or branched chain alkyl, alkenyl or alkynyl with up to 10 carbons that is unsubstituted, or substituted with one or more groups selected from a hetero functionality that is either not substituted, mono-substituted or multiply substituted with an alkyl, alkenyl or alkynyl chain up to 10 carbons; a halo functionality (F, Cl, Br or I); an aromatic group optionally substituted with at least one hetero, halo or alkyl; or R<sub>h1</sub> and R<sub>h2</sub> are independently a group containing at least one aliphatic or aromatic group optionally substituted with at least one hetero, halo or alkyl;

f) Z'' is >CH<sub>2</sub>;

and wherein saturated bonds in any ring may be dehydrogenated;

and wherein all monosubstituted substituents have either an α or β configuration;

and wherein lower alkyl is defined as a carbon chain having 1-10 carbon atoms which  
 25 may be branched or unbranched.

2. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

30 3. The compound of Claim 1, wherein :  
 R<sub>a</sub> is -OCH<sub>3</sub>; and  
 R<sub>g</sub> is =CH<sub>2</sub>.

- 20  
25  
30
4. The compound of Claim 1, wherein :
- R<sub>a</sub> is -OCH<sub>3</sub>;
- R<sub>g1</sub> is absent; and
- 5 R<sub>g2</sub> is =NOH.
5. The compound of Claim 1, wherein :
- R<sub>a</sub> is -OCH<sub>3</sub>;
- R<sub>g1</sub> is β-H<sub>1</sub>; and
- 10 R<sub>g2</sub> is α-OH.
6. The compound of Claim 1, wherein :
- R<sub>a</sub> is -OCH<sub>3</sub>;
- R<sub>g1</sub> is -H; and
- R<sub>g2</sub> is -NH<sub>2</sub>.
7. The compound of Claim 1, wherein :
- R<sub>a</sub> is -OCH<sub>3</sub>;
- Z' is >C-OAc;
- R<sub>g1</sub> is -H; and
- R<sub>g2</sub> is -OAc.
8. The compound of Claim 1, wherein :
- R<sub>a</sub> is -OCH<sub>3</sub>;
- R<sub>g1</sub> is -H; and
- 25 R<sub>g2</sub> is -CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>.
9. The compound of Claim 1, wherein :
- R<sub>a</sub> is -OCH<sub>3</sub>;
- R<sub>g1</sub> is -H; and
- 30 R<sub>g2</sub> is -CH<sub>3</sub>.

10. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>; and

R<sub>g</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

5 11. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

R<sub>g1</sub> is -H; and

R<sub>g2</sub> is -NHCH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>.

10 12. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>; and

R<sub>g</sub> is =CHCH<sub>3</sub>.

13. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

R<sub>g1</sub> is -H; and

R<sub>g2</sub> is -CH<sub>2</sub>CH<sub>3</sub>.

14. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>; and

R<sub>g</sub> is =N-NH-(SO<sub>2</sub>)-C<sub>6</sub>H<sub>4</sub>-p-CH<sub>3</sub>.

15. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is -COOH.

25

16. A method of modifying estradiol analogs for preventing or hindering demethylation, oxidation and conjugation with another molecule during metabolism.

30

17. The method claim 16 wherein the method comprises adding steric bulk or modification of chemical or electrostatic characteristics or a combination thereof to estradiol analogs for retarding or preventing metabolic deactivation.

18. The compound of Claim 1, wherein:  
Ra is -OCH<sub>3</sub>;  
>C-Rg1 is >CH;  
5 >C-Rg2 is >COH; and  
R<sub>h1</sub> and R<sub>h2</sub> are independently -H and Et.
19. The compound of Claim 1, wherein:  
Ra is -OCH<sub>3</sub>;  
10 >C-Rg1 is >CH;  
>C-Rg2 is >COH; and  
R<sub>h1</sub> and R<sub>h2</sub> are independently H and n-Pr.
20. The compound of Claim 1, wherein:  
Ra is -OCH<sub>3</sub>;  
>C-Rg1 is >CH;  
>C-Rg2 is >COH; and  
R<sub>h1</sub> and R<sub>h2</sub> are independently H and i-Bu.
21. The compound of Claim 1, wherein:  
Ra is -OCH<sub>3</sub>;  
>C-Rg1 is >CH;  
20 >C-Rg2 is >COH; and  
R<sub>h1</sub> and R<sub>h2</sub> are independently H and CH<sub>2</sub>OH.
- 25 22. The compound of Claim 1, wherein :  
Ra is -OCH<sub>3</sub>;  
>C-Rg1 is >CH;  
>C-Rg2 is >COH; and  
30 R<sub>h1</sub> and R<sub>h2</sub> are independently H and n-Bu.

23. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

>C-Rg1 is >CH;

>C-Rg2 is >COH; and

5 Z" is >CH<sub>2</sub>, and

R<sub>h1</sub> and R<sub>h2</sub> are independently H and Me.

24. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

10 >C-Rg1 is >CH;

>C-Rg2 is >COH; and

R<sub>h1</sub> and R<sub>h2</sub> are independently H and -CH<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>.

25. The compound of Claim 1, wherein :

R<sub>a</sub> is -C(O)CH<sub>3</sub>;

>C-Rg1 is >CH; and

>C-Rg2 is >COH.

26. The compound of Claim 1, wherein :

R<sub>a</sub> is -C(O)H;

>C-Rg1 is >CH; and

>C-Rg2 is >COH.

27. The compound of Claim 1, wherein :

25 R<sub>a</sub> is -CH<sub>2</sub>OH;

>C-Rg1 is >CH; and

>C-Rg2 is >COH.

28. The compound of Claim 1, wherein :

30 R<sub>a</sub> is -NO<sub>2</sub>;

>C-Rg1 is >CH; and

>C-Rg2 is >COH.

29. The compound of Claim 1, wherein :
- R<sub>a</sub> is -N(CH<sub>3</sub>)<sub>2</sub>;
- >C-R<sub>g1</sub> is >CH; and
- 5 >C-R<sub>g2</sub> is >COH.
30. The compound of Claim 1, wherein :
- R<sub>a</sub> is -NH<sub>2</sub>;
- >C-R<sub>g1</sub> is >CH; and
- 10 >C-R<sub>g2</sub> is >COH.
31. The compound of Claim 1, wherein :
- R<sub>a</sub> is -C≡C-CH<sub>3</sub>;
- >C-R<sub>g1</sub> is >CH; and
- 15 >C-R<sub>g2</sub> is >COH.
32. The compound of Claim 1, wherein :
- R<sub>a</sub> is -CH<sub>2</sub>CH<sub>3</sub>;
- >C-R<sub>g1</sub> is >CH; and
- 20 >C-R<sub>g2</sub> is >COH.
33. The compound of Claim 1, wherein :
- R<sub>a</sub> is -CH<sub>3</sub>;
- >C-R<sub>g1</sub> is >CH; and
- 25 >C-R<sub>g2</sub> is >COH.
34. The compound of Claim 1, wherein :
- R<sub>a</sub> is -NH<sub>2</sub>; and
- R<sub>g1</sub> and R<sub>g2</sub> are each H.

35. The compound of Claim 1, wherein :

R<sub>a</sub> is -C(O)NH<sub>2</sub>; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

5 36. The compound of Claim 1, wherein :

R<sub>a</sub> is -NH<sub>2</sub><sup>+</sup>CH<sub>3</sub>; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

37. The compound of Claim 1, wherein :

10 R<sub>a</sub> is -N(CH<sub>3</sub>)<sub>2</sub>; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

38. The compound of Claim 1, wherein :

R<sub>a</sub> is -NH<sup>+</sup>(CH<sub>3</sub>)<sub>2</sub> (or N(CH<sub>3</sub>)<sub>2</sub>-HCl); and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

39. The compound of Claim 1, wherein :

R<sub>a</sub> is -NH<sup>+</sup>(CH<sub>3</sub>)<sub>2</sub> or N(CH<sub>3</sub>)<sub>2</sub>-HCl; and

>C-R<sub>g1</sub> is >CH; and

>C-R<sub>g2</sub> is >COH.

40. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

>C-R<sub>g1</sub> is >CH;

25 >C-R<sub>g2</sub> is >COH; and

an olefin at C9-C11.

41. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>2</sub>CH<sub>3</sub>;

30 R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>3</sub>.

42. The compound of Claim 1, wherein :

R<sub>a</sub> is -C≡C-CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CHCH<sub>3</sub>.

5

43. The compound of Claim 1, wherein :

R<sub>a</sub> is -C(O)H;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CHCH<sub>3</sub>.

10

44. The compound of Claim 1, wherein :

R<sub>a</sub> is -NHC(O)H or -NNC(O)N;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CHCH<sub>3</sub>.

45  
15  
20

45. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>OH;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CHCH<sub>3</sub>.

20  
25

46. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CHCH<sub>3</sub>.

25

47. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CHCH<sub>3</sub>.

30

48. The compound of Claim 1, wherein:  
 $R_a$  is  $-CH=CHCH_3$ ;  
 $R_g1$  is absent; and  
 $R_g2 = CHCH_3$ .

5

49. The compound of Claim 1, wherein:  
R<sub>a</sub> is -OCH<sub>2</sub>CH<sub>3</sub>;  
R<sub>g1</sub> is absent; and  
R<sub>g2</sub> =CH<sub>2</sub>.

19

50. The compound of Claim 1, wherein :

$R_a$  is  $-C\equiv CCH_3$ ;

$R_g1$  is absent; and

$R_g2 = CH_2$ .

卷之三

51. The compound of Claim 1, wherein:

  - R<sub>a</sub> is -C(O)H;
  - R<sub>g1</sub> is absent; and
  - R<sub>2</sub> =CH<sub>2</sub>.

20

52. The compound of Claim 1, wherein:  
 $R_3$  is  $-NHC(O)H$ ;  
 $R_8$  is absent; and  
 $R_{8.2} = CH_2$ .

25

53. The compound of Claim 1, wherein:

  - R<sub>a</sub> is -CH<sub>2</sub>OH;
  - R<sub>g1</sub> is absent; and
  - R<sub>g2</sub> =CH<sub>2</sub>.

30

54. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CH<sub>2</sub>.

5

55. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CH<sub>2</sub>.

10

56. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH=CHCH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> =CH<sub>2</sub>.

20  
TOKUZO'S 20220506

57. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>2</sub>CH<sub>3</sub>; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

58. The compound of Claim 1, wherein :

R<sub>a</sub> is -C≡CCH<sub>3</sub>; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

25

59. The compound of Claim 1, wherein :

R<sub>a</sub> is -C(O)H; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

30

60. The compound of Claim 1, wherein :

R<sub>a</sub> is -NHC(O)H; and

R<sub>g1</sub> and R<sub>g2</sub> are each H.

- 1000 800 700 600  
500 400 300 200  
100 50 20 10
61. The compound of Claim 1, wherein :
- R<sub>a</sub> is -CH<sub>2</sub>OH; and
- R<sub>g</sub>1 and R<sub>g</sub>2 are each H.
- 5 62. The compound of Claim 1, wherein :
- R<sub>a</sub> is -CH<sub>2</sub>CH<sub>3</sub>; and
- R<sub>g</sub>1 and R<sub>g</sub>2 are each H.
- 10 63. The compound of Claim 1, wherein :
- R<sub>a</sub> is -CH<sub>3</sub>; and
- R<sub>g</sub>1 and R<sub>g</sub>2 are each H.
64. The compound of Claim 1, wherein :
- R<sub>a</sub> is -CH=CHCH<sub>3</sub>; and
- R<sub>g</sub>1 and R<sub>g</sub>2 are each H.
65. The compound of Claim 1, wherein :
- R<sub>a</sub> is -OCH<sub>2</sub>CH<sub>3</sub>;
- R<sub>g</sub>1 is H; and
- R<sub>g</sub>2 is CH<sub>3</sub>.
66. The compound of Claim 1, wherein :
- R<sub>a</sub> is -C≡CCH<sub>3</sub>;
- R<sub>g</sub>1 is H; and
- R<sub>g</sub>2 is CH<sub>3</sub>.
67. The compound of Claim 1, wherein :
- R<sub>a</sub> is -C(O)H;
- R<sub>g</sub>1 is H; and
- R<sub>g</sub>2 is CH<sub>3</sub>.

68. The compound of Claim 1, wherein:  
 $R_a$  is  $-NHC(O)$ ;  
 $R_g1$  is H; and  
 $R_g2$  is  $CH_3$ .

5

69. The compound of Claim 1, wherein:  
R<sub>a</sub> is -CH<sub>2</sub>OH;  
R<sub>g1</sub> is H; and  
R<sub>g2</sub> is CH<sub>3</sub>.

10

70. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>CH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>3</sub>.

71. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>3</sub>.

21

72. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH=CHCH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>3</sub>.

25

73. The compound of Claim 1, wherein:  
R<sub>a</sub> is -OCH<sub>2</sub>CH<sub>3</sub>;  
R<sub>g1</sub> is H; and  
R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

30

74. The compound of Claim 1, wherein :

R<sub>a</sub> is -C≡CCH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

5

75. The compound of Claim 1, wherein :

R<sub>a</sub> is -C(O)H;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

10

76. The compound of Claim 1, wherein :

R<sub>a</sub> is -NHC(O)H;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

TD 280-8125E660  
25  
20

77. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>OH;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

25

78. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>CH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

30

79. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

80. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH=CHCH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is CH<sub>2</sub>CH<sub>3</sub>.

5

81. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>2</sub>CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

10

82. The compound of Claim 1, wherein :

R<sub>a</sub> is -C≡CCH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

TD280 81263660  
20

83. The compound of Claim 1, wherein :

R<sub>a</sub> is -C(O)H;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

25

84. The compound of Claim 1, wherein :

R<sub>a</sub> is -NHC(O)H;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

25

85. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>OH;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

30

86. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>2</sub>CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

5

87. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

10

88. The compound of Claim 1, wherein :

R<sub>a</sub> is -CH=CHCH<sub>3</sub>;

R<sub>g1</sub> is absent; and

R<sub>g2</sub> is =CHCH<sub>2</sub>CH<sub>3</sub>.

TO 220-31265-660  
20

89. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

R<sub>g1</sub> is H; and

R<sub>g2</sub> is -CH<sub>2</sub>OH.

25

90. The compound of Claim 1, wherein :

R<sub>a</sub> is -OCH<sub>3</sub>;

>C-R<sub>g1</sub> is >CH;

>C-R<sub>g2</sub> is >COH; and

an olefin at C6-C7.

25

91. The compound of Claim 1, wherein :

R<sub>a</sub> is -N<sub>3</sub>; and

>C-R<sub>g</sub> is >CH.

30

90. The compound of Claim 1, wherein :

R<sub>a</sub> is -H; and

>C-R<sub>g</sub> is >CH.